

Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040); and River Corridor Closure Project (RL-0041)

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April 30, 2004, 233-S Demolition complete



233-S
October 2003

233-S
May 2004



Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation and Decommissioning (M. B. Lackey);
- Reliability Projects (M. B. Lackey); and
- Waste Site Remediation (R. T. Wilde).

This section also includes PBS RL-0041, *Nuclear Facility D&D, River Corridor Closure Project*, until this work scope transitions to the River Corridor Contractor.

NOTE: Unless otherwise noted, all information contained herein is as of the end of April 2004.

Notable Accomplishments

Deactivation and Decommissioning



233-S Demolition: As of April 30, 2004, all 29 wall slabs were removed from the facility, thus completing demolition of the 233-S/SA Facilities to "slab on grade". This was the first "open air" D&D of a high-hazard nuclear facility in the United States. Since October 2003, workers made 4,500 entries into the contaminated area without a skin contamination event.

Reliability Project:

Project L-341, *Reline 20-Inch Water Line S-Plant to Water Treatment Plant:*

This project designed and refurbished a significant portion of the potable and raw water lines between the 200 West Water Treatment Plant and the S-Plant Complex, utilizing the proven technology of Mortar Lining.

Field work began in late August 2003 to refurbish approximately two miles of the most degraded raw-water line in the 200 Area. Construction on this project was completed April 30, 2004.



Project L-434, *Guardrail Installation on Route 4N:*

This safety-related project installed safety guardrails on both sides of Route 4N on the road shoulder in the area of a steep embankment about 8,000 feet north of Route 11A. Construction started on April 5, 2004, and completed as expected on April 16, 2004.



Notable Accomplishments, continued

Project L-435, *Drains installation on Route 11A*: This safety-related project installed the facilities necessary to drain standing water from the traveled way of Route 11A near the bottom of the hill about three miles east of Dayton Ave. Construction started on March 31, 2004, and completed as expected on April 16, 2004.



Waste Site Remediation

U Plant Regional Closure: A preliminary draft of the Design Criteria/Design Basis document was completed on April 13, 2004, and on April 14-15, 2004, a workshop was held with the U Plant design team and the surface barrier technical consultants. These are critical efforts for barrier design development.

On April 27, 2004, the regulators approved Tri-Party Agreement (TPA) Change Request C-03-01, which establishes a new operable unit (200-UW-1) for the waste sites in the U Plant Closure Area.

200 Area Remedial Investigation/Feasibility Study (RI/FS) Work: Work continued on a number of RI/FS with the preparation of RI/FS documentation. Revision 1 of the Work Plan for the U-Pond and Ditches Waste Group (200-CW-5, 200-CW-2, 200-CW-4, and 200-SC-1 operable units) was submitted to RL on April 19, 2004. The remedial investigation report for the Uranium-Rich and General Process Waste Group (200-PW-2 and 200-PW-4 operable units) was submitted to RL for review on April 30, 2004. The Work Plan for the Unplanned Release Waste Group (operable unit 200-UR-1) was submitted to RL for review on April 30, 2004.

FY 2004 FH Funds versus Actual (\$000)

	FY 2004 Anticipated Funding w/Carryover	FY 2004 Fiscal Year Spend Forecast	Variance
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$ 73,467	\$ 67,536	\$ 5,931
RL-0041 Nuclear Facility D&D, River Corridor Closure	\$ 12,435	\$ 11,624	\$ 811
Total	\$ 85,902	\$ 79,160	\$ 6,742

Note: Infrastructure Reliability has work scope projected to carry over to FY 2005 (\$5.9M). Waste Site Cleanup deferred several activities to accommodate projected overruns (\$2.4M).

FY 2004 Schedule/Cost Performance (\$000)

		Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
RL-0040	Nuclear Facility D&D, Remainder of Hanford	44,378	32,661	37,484	-11,717	-26%	-4,823	-15%	85,521
RL-0041	Nuclear Facility D&D, River Corridor Closure	6,431	6,605	6,526	175	3%	79	1%	11,370
Total		50,809	39,266	44,009	-11,542	-29%	-4,743	-12%	96,891

NOTE: The above excludes Work for Others associated with these PBSS, as Work for Others is reported in Section H. Numbers are rounded to the nearest \$K and include the closure services allocation.

Schedule Performance (-\$11,542K/-29%): The unfavorable schedule variance in the D&D sub-project is primarily due to delays in mobilization and engineering studies at 224-B/224-T/U Plant due to resource availability, delays in issuance of the 224-B/224-T engineering evaluation/cost analysis (EE/CA) due to redirection of the "plug-in" approach, and not starting U Plant ancillary facilities activities due to FY 2004 funding reductions (-\$8,140K).

The unfavorable schedule variance is also attributable to 200 Area Waste Site Cleanup (-\$4,190K) principally due to the deferral of work scope in response to FY 2004 funding reductions. This includes the A-8 waste site investigation, the Z-9 slant borehole, and the Step 2 investigation work for 200-PW-1; the test pit work and half of the boreholes planned for 200-MW-1; the pipeline EE/CA, test pit and borehole construction, pipeline design, crib stabilization, and the removal/disposal design work for the U Plant Regional Closure; and the design/confirmatory sampling and design for B/C Cribs waste sites.

The favorable schedule variance in Reliability is due to progress in completing FY 2003 carryover work scope (\$2,040K) as well as early completion of Route 11A Road Overlay (\$125K) and L-347, Radio Frequency Migration (\$282K) somewhat offset by delays in initiating new starts and L-325 conceptual design validation delay (-\$1,059K).

FY 2004 Schedule/Cost Performance, continued

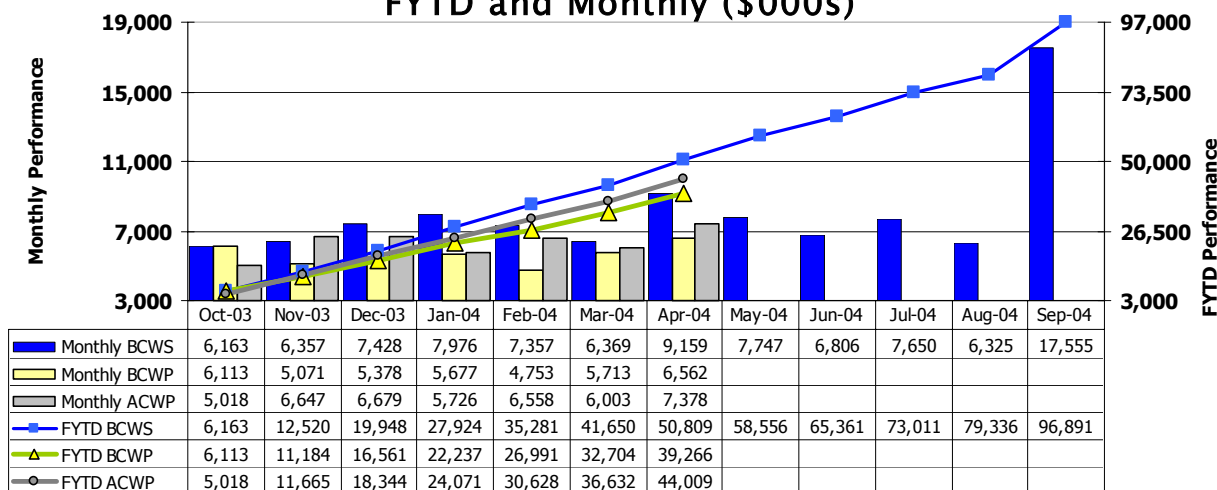
Cost Performance (-\$4,743K/-12%): The unfavorable variance for D&D is due to 233-S demolition (-\$5,581K) activities being more extensive, thus requiring retention of resources (personnel and equipment) for a longer period of time (approximately six months).

Cost efficiencies exist in surveillance and maintenance and decontamination and disposition of general purpose facilities (\$383K), land management (\$111K) and infrastructure reliability (\$78K) which will be utilized for dismantling the steam lines (\$300K), characterization of the 748 Building in Richland (\$45K), and Post Closure and Institutional Engineering Controls work scope (\$38K).

The unfavorable cost variance for 200 Waste Site Cleanup (-\$1,214K) is due to Z-9 (200-PW-1) requiring more sampling/analysis, waste packaging, and transportation support than planned due to encountering higher levels of contamination than expected. The 200-PW-2 Remedial Investigation work that was delayed from FY 2003 has had increased equipment replacement costs, and extra sample shipping and packaging costs due to the 216-A-10 field work. Also, the restructuring of the 200-UR-1 Work Plan to accommodate the State of Washington Department of Ecology's position that additional waste site be included in the Remove/Treat/Dispose option resulted in increased costs.

The favorable cost variance in Closure Services is a result of projected efficiencies that may be offset with the seasonal maintenance activities and fabrication services outsourcing (\$231K) and uncoded system upgrades which are in development (\$56K).

Performance Analysis FYTD and Monthly (\$000s)



Milestones

PBS	MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status Comments
CP01	TRP-03-227 M-015-41C	Submit 200-TW-1 & 200-TW-2 OU FS/Proposed Plan to EPA & Ecology	HQ	03/31/04	03/30/04		Completed ahead of schedule
CP01	TRP-03-230 M-015-39B	Submit 200-CS-1 Chemical Sewer Group RI Report	HQ	05/31/04			On schedule
CP01	TRP-03-224 M-013-00N	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	06/30/04			On schedule
CP01	TRP-03-233 M-015-43B	Submit 200-PW-2 OU RI Report Including Past Practice Waste Sites	HQ	06/30/04			On schedule
CP01	TRP-03-309	233-S (PuConcentration Facility) and the 233-SA (Exhaust Filter Building) demolished to slab on grade.	RL	06/30/04	04/30/04		Completed ahead of schedule
CP01	TRP-03-501 M-092-11-T01	Complete Disposition Options for Hanford Site Nonradioactive NA	RL	09/28/04			On schedule
CP01	TRP-03-236 M-016-66	Initiate Interm. Des.& Auth for RA at 618-10&11	HQ	09/30/04			On schedule
CP01	TRP-03-242 M-015-40C	Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group FS & Submit	HQ	10/31/04			On schedule
CP01	TRP-03-139 M-013-00O	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	12/31/04			On schedule
CP01	TRP-03-260 M-015-46A	200 Areaa Chemical Lab Waste OUs Remedial investigation Report.	HQ	10/31/05			On schedule
CP01	TRP-03-245 M-015-39C	Submit 200-CS-1 Chemical Sewer Group FS and Submit PP/Proposed	HQ	11/30/05			On schedule
CP01	TRP-03-248 M-020-39	Submit 216 S-10 Pond and Ditch Closure Plan to Ecology	HQ	11/30/05			On schedule
CP01	TRP-03-254 M-015-43C	Submit 200-PW-2 OU FS & Proposed Plan/Proposed RCRA Permit Mod	HQ	12/31/05			On schedule
CP01	TRP-03-257 M-020-33	Submit Closure/Post Closure Plans for 216-A-10 Crib, Etc.	HQ	12/31/05			On schedule
CP01	TRP-03-263 M-015-44A	200-MW-1 OU Remedial Investigation Report	HQ	12/31/05			On schedule
CP01	TRP-03-266 M-015-46B	200 Area Chemical Laboratory Waste OUs Feasibility Study	HQ	09/30/06			On schedule
CP01	TRP-03-272	Remediate BC Crib and Trenches	RL	09/30/06			On schedule
CP01	TRP-03-303	U Plant Regional Closure (high risk waste sites)	RL	09/30/06			On Schedule
CP01	TRP-03-312	224-B (Concentration Facility) demolished to slab on grade.	RL	09/30/06			The Baseline adjustment will delete this milestone
CP01	TRP-03-315	224-T (Transuranic Storage & Assay Facility) demolished to slab on grade.	RL	09/30/06			The Baseline adjustment will delete this milestone
RC06	TRP-04-901 M-92-15	Complete Removal and Transfer, and Initiate Storage of Phase II 300 Area SCW and Materials	EA	09/30/04	09/19/01		Completed ahead of schedule